

in parallel columns. This comparison does not represent any attempt on the part of the writer himself to differentiate between the two, but is only an expression of the opinion of others.

Epithelioma.	Rodent Ulcer.
Usually arises from mucocutaneous junctions.	Usually arises from the skin surface.
First appears as a wart, a fissure, or a nodule.	First appears as a dark nodule with a depressed center.
When ulcerated the edges are undermined.	When ulcerated the edges are undermined.
Some claim that the neighboring lymphatics are always involved sooner or later, others that they are seldom involved.	Does not involve lymphatics.
Early tendency to involve only superficial structures.	Early tendency to invade the deeper structures.
Slight burning, itching or stabbing pain early in disease, and severe pain later.	Very little pain.
Appears after age of 40 years.	Appears after age of 40 years.
Progress slow.	Progress slow.
Death by exhaustion or hemorrhage.	Death by exhaustion, or by destruction of deep structures.

There are some points in common that practically all observers are agreed on, viz., that carcinoma of the eyelid is a disease that appears after middle life; it commences usually at the lid margin or on the skin surface near the margin, and occasionally on the mucous surface near the lid margin; enlarged lymphatic glands, especially pre-auricular, are sometimes found; the condition, which consists of epithelial processes and nests, with small round-cell infiltration in and about the growth, may remain quiescent for years, or its destructive tendencies may be manifest almost from the beginning; metastasis is apt to occur; the etiology is not known. It may be confused with chancre, with molluscum contagiosum, with lupus, or with a broken down chalazion. Chancre need not long remain in doubt if one watches for other manifestations of syphilis and uses the therapeutic tests. Lupus occurs more commonly in childhood; it leaves decided scarring, and is very apt to be found in other localities. Molluscum usually presents greater elevation, has a smooth surface, is more acute in its course, and is often multiple. Chalazion usually breaks through the mucous surface of the lid, while carcinoma more often attacks the skin surface.

The treatment is quite varied. While at the present time resort is probably most often had to the knife and curette, and the X-ray, very good results have been obtained with caustics, such as nitric or chromic acid, saturated solution of chloracetic acid, saturated solution of chlorate of potash, or the actual cautery. In using chemical caustics, one should protect the field outside of the area to be acted on, by the application of vaseline, and after the desired amount of cauterization has been attained the drug should be neutralized or washed away. Repeated cauterizations are usually necessary. For very small carcinomata the X-ray probably affords the nicest method of treatment, though it is not always successful, and resort has to be had to other methods. It should be applied for five or ten minutes, two or three times a week, the light being passed through an aperture in a sheet of lead protective. The use of radium bromide, applied by fastening a tube of the material over the growth for a few minutes at a time every week or two,

has also been reported on quite favorably. For large growths, no doubt, excision and curettement, followed by caustics or the actual cautery, or by the X-ray, will prove the most efficient.

DERMATITIS VENENATA FROM PROPRIETARY HAIR DYE.

By ERNEST DWIGHT CHIPMAN, M. D., San Francisco.

The frequent occurrence of a certain form of dermatitis having special characteristics and due to the use of a proprietary hair dye seems to call for further comment even though similar cases have been previously reported.

The fact that within a few months the writer has met with six cases of severe dermatitis of more or less extensive distribution, the reaction in each instance following the use of "Mrs. Potter's Walnut Tint Hair Stain," leads to the belief that this particular nostrum is especially noxious and that the relation between its employment and subsequent inflammations of the skin often passes unnoticed.

In cases previously reported this dermatitis is spoken of as resulting from the use of "Mrs. Potter's Walnut Juice Hair Stain." This slight difference in nomenclature is mentioned as indicating only approximate designation on the part of earlier reporters or, what is more likely, a change in the name of the hair dye "for trade reasons." At any rate, "Mrs. Potter's Walnut Juice Hair Stain" was found by the North Dakota Agricultural Experiment Station to depend "for its action on paraphenylene diamine, a substance which when oxidized by means of a solution of hydrogen dioxide becomes an intense black."¹

The "Mrs. Potter's Walnut Tint Hair Stain" which has preceded the dermatitis in our cases has been apparently of this nature for it comes in two bottles, one of which appears to be hydrogen dioxide. The results of its employment also correspond very closely with the accounts of poisoning by paraphenylene diamine published by Mewborn in 1901.²

One primary difficulty in the diagnosis of dermatitis from hair dye is the fact that the patient volunteers no information concerning the use of such a substance. In the nature of things it is more or less a secret. Aside from this the reaction often occurs several days or even weeks, after the last application of the dye and the patient does not suspect the dye to be the exciting cause of the trouble.

The chemical process, as stated by Mewborn, involves the production of quinone, $C_6H_4O_2$ by the union of a solution of the hydrochlorate of paraphenylene diamine with oxygenated water. This gives off very irritating vapors at ordinary temperatures. Mechanically the spread of the irritating substance is facilitated by the common custom of women combing their hair forward and downward over the face.

Special factors are possibly first, the existence of an idiosyncrasy for the substance—the behavior and spread of the inflammation resembles somewhat the dermatitis from poison oak—and second, the character of the soil, as it were, upon which it develops. In our most recent case, the eruption showed marked predilection for those portions of the face which seborrhea preferentially affects.

Clinically the eruption begins as an erythema varying doubtless with the resistance of the skin as well as the strength and frequency of the application. Following the erythema, an edema of the skin is observed, and later a desquamation which is proportionate to the intensity of the original erythema.

The outbreak may be diffuse from the beginning or it may originate in discrete patches which later coalesce. There is a definite tendency to spread and the inflammation starting on the face and forehead may extend downward over neck, shoulders, arms and chest.

Objectively the process often has a mildly inflammatory or subacute appearance which is remarkably out of proportion to the subjective symptoms. The patients invariably complain bitterly of burning, itching and a feeling of extreme tension in the skin. In some instances the scalp is only slightly, if at all, involved, which is not particularly to be wondered at as that region is much more tolerant than other parts.

Concerning the spread of the dermatitis, it must be remembered that the direct irritant is a vapor and as already suggested, this vapor is easily communicated directly from the hair to the face, neck, shoulders and adjacent parts. Whether or not this explanation suffices in those cases of more widespread distribution is a question. It is possible that the quinone, the substance from which the irritating vapors emanate, is itself transferred from the hair to the neighboring parts by the hands, clothing, etc., as in the case of poison ivy and similar poisonous plants. Such transference seems much more plausible than the explanation on such grounds as nervous erythism or absorption suggested by Mewborn.

There is apparently little tendency to spontaneous cure, the reason for which lies in the fact that the poisonous vapors are given off gradually and persistently from the hair.

Complications of various nature may supervene, a fact which is illustrated by the occurrence in one of our cases of a carbuncle which for a time, made the case one involving a question of life and death.

The diagnosis of this particular form of dermatitis is naturally easy when the history is complete. In any form of dermatitis careful search for the particular irritant is presupposed.

In the writer's experience no one sign is so significant as the great disparity between the objective signs and the subjective symptoms. All of the six cases referred to here occurred in middle aged or elderly women. A glimpse at the scalp often reveals the fact that the hairs for a fraction of an inch at the proximal ends are of a different tint from the remaining portions. In the early stages the possible mistake is erythematous eczema, in which case the foregoing facts are sufficient for a differentiation. Severe forms may bear a slight resemblance to erysipelas, but marked constitutional disturbances are wanting. In some cases, owing to the distribution over scalp and face, seborrheic dermatitis is suggested. The latter rarely gives rise to such severe subjective symptoms.

Any dermatitis of the scalp and face, especially in middle aged women, should excite suspicion and

call for scrutiny of the scalp as well as careful enquiry concerning the use of hair dyes.

The treatment is first of all to discontinue the use of the hair dye. Next in order is the removal of what irritating substance remains on the hair by thorough washings. In doing this we have found it useful to advise careful protection of the inflamed skin by a protective paste during the process. Externally the calamin and zinc lotion, while giving great relief, takes second place to applications of Lassar's paste containing one to two per cent. of phenol. The protection afforded by such a paste seems to fulfill the paramount indication. Internally a saline at the outset and bromides as indicated are the remedies most often of service.

It would be interesting to learn of some substance chemically antagonistic to quinone.

References.

- (1)—Editorial, *Journal A. M. A.*, Sept. 4, 1909.
- (2)—Mewborn, *Journal A. M. A.*, May 18, 1901.

REPORT OF A CASE OF PERFORATED DUODENAL ULCER, OPERATED UPON 55 HOURS AFTER PERFORATION, COMPLICATED BY DOUBLE PLEURO-PNEUMONIA.*

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The history of this case which was referred to me by Dr. Torello was as follows: Miss G., age 21, well nourished, but somewhat anemic.

Family history. Negative as to its relation to the present illness.

Previous history. Usual diseases of childhood. Stomach trouble for the past year. Has had pain in stomach after almost every meal—not immediately—usually one-half to one hour after. No pain before meals. For past month or two has had pain like intercostal neuralgia around both sides of the chest, low down, and through to the back; intermittent and at times very distressing. No vomiting, or eructations. Appetite always good. Never noticed her stools.

Present illness. Began Jan. 12, 1910, at 4 p. m. with severe pain in the abdomen and a fainting spell. Patient was put to bed. Pulse rapid. Temperature normal. Pain in the abdomen persisted and was not relieved by opiates. Jan. 13th, pain still severe, but complained more of it in cervical region of the back. Mustard leaves applied with no relief. Abdomen not distended. Pulse rapid but temperature normal. Jan. 14th, the patient was seen in the morning and the pain being still unrelieved another injection of morphin was given. In the afternoon the abdomen had become distended, the patient's general condition was observed to be much worse and a consultation was called. When seen at 9:30 p. m. the abdomen was greatly distended and tympanitic; liver dullness obliterated; muscles rigid and tender. Respirations short and rapid—facies anxious. Pulse, 140, small but regular. Temp., 100°. A diagnosis of perforated duodenal ulcer was made and the patient sent to St. Luke's Hospital, arriving there at 11 p. m. Ether anesthesia was given immediately. Incision made slightly to the right of median line below free border of ribs. On opening the peritoneum large amount of gas escaped followed by serous and then by purulent fluid. The least possible investigation was done as the patient was in extremis. Superficial search was made for the perforation, but only a yellow fibrinous exudate was seen about the duodenum and to this point a rubber drainage tube and a gauze wick drain were carried. Another gauze wick drain was inserted along the outer side of the duodenum down into the

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